

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 129)

FOIL the expressions shown below:

1. $(-8x - 5)(8x - 8)$

$$\begin{aligned} &(-8)(8)x^2 + (-8)(-8)x + (-5)(8)x + (-5)(-8) \\ &(-64)x^2 + (64)x + (-40)x + (40) \\ &-64x^2 + 24x + 40 \end{aligned}$$

2. $(-8x - 8)(4x - 3)$

$$\begin{aligned} &(-8)(4)x^2 + (-8)(-3)x + (-8)(4)x + (-8)(-3) \\ &(-32)x^2 + (24)x + (-32)x + (24) \\ &-32x^2 - 8x + 24 \end{aligned}$$

3. $(3x + 2)(9x - 7)$

$$\begin{aligned} &(3)(9)x^2 + (3)(-7)x + (2)(9)x + (2)(-7) \\ &(27)x^2 + (-21)x + (18)x + (-14) \\ &27x^2 - 3x - 14 \end{aligned}$$

4. $(6x - 9)(9x - 5)$

$$\begin{aligned} &(6)(9)x^2 + (6)(-5)x + (-9)(9)x + (-9)(-5) \\ &(54)x^2 + (-30)x + (-81)x + (45) \\ &54x^2 - 111x + 45 \end{aligned}$$

5. $(9x - 2)(6x + 2)$

$$\begin{aligned} &(9)(6)x^2 + (9)(2)x + (-2)(6)x + (-2)(2) \\ &(54)x^2 + (18)x + (-12)x + (-4) \\ &54x^2 + 6x - 4 \end{aligned}$$

FOIL the expressions shown below:

6. $(5x - 6)(8x + 9)$

$$\begin{aligned}(5)(8)x^2 + (5)(9)x + (-6)(8)x + (-6)(9) \\ (40)x^2 + (45)x + (-48)x + (-54) \\ 40x^2 - 3x - 54\end{aligned}$$

7. $(3x + 2)(-4x + 4)$

$$\begin{aligned}(3)(-4)x^2 + (3)(4)x + (2)(-4)x + (2)(4) \\ (-12)x^2 + (12)x + (-8)x + (8) \\ -12x^2 + 4x + 8\end{aligned}$$

8. $(5x + 5)(-3x - 8)$

$$\begin{aligned}(5)(-3)x^2 + (5)(-8)x + (5)(-3)x + (5)(-8) \\ (-15)x^2 + (-40)x + (-15)x + (-40) \\ -15x^2 - 55x - 40\end{aligned}$$

9. $(5x - 8)(4x + 6)$

$$\begin{aligned}(5)(4)x^2 + (5)(6)x + (-8)(4)x + (-8)(6) \\ (20)x^2 + (30)x + (-32)x + (-48) \\ 20x^2 - 2x - 48\end{aligned}$$

10. $(7x + 8)(-8x + 3)$

$$\begin{aligned}(7)(-8)x^2 + (7)(3)x + (8)(-8)x + (8)(3) \\ (-56)x^2 + (21)x + (-64)x + (24) \\ -56x^2 - 43x + 24\end{aligned}$$